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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,910	10/15/2003	Yong-Chan Keh	5000-1-443	6253
33942	7590	12/09/2005	EXAMINER	
CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652			NGUYEN, TUAN N	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,910

Applicant(s)

KEH ET AL.

Examiner

Tuan N. Nguyen

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pw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-21 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION
Claim Rejections - 35 USC § 102

1. The following is a quotation of 35 U.S.C. 102(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 7, 10 are rejected under 35 U.S.C. 102(a) as being unpatentable over Yagi et al. (US 6868105).

With respect to claims 1, 10 Yagi et al. '105 shows and discloses an optical element module package (Fig 16) having a laser diode (Fig 6: 5 LD) for projecting optical signals and a photo diode (Fig 6: 6 photodiode)(Col 15: 25-67) for monitoring the optical signals projected from the laser diode, comprising: a stem (Col 1: 40-45) having a first through-hole formed in a long-hole shape that is parallel to the diametrical direction of the stem (ABSTRACT) (Fig 1a, 1c: surface through hole 1a, 1b along or parallel to the stem to be connected to the optical elements 4-7); and a plurality of leads arranged in a row (Fig 1a: 2g-2l plural through leads) and provided in the first through-hole, wherein the first through-hole is filled with a sealant of a glass material (Col 2: 15-20, seal the hole with glass process that suitable for mass production) so that the stem and the plurality of leads are held together. Since claim 10 recites the same or identical elements/limitations it is inherent to use patents ('105) to recite the method of manufacturing an optical element module package, product by process.

With respect to claim 7, Yagi et al. '105 shows and discloses the package further comprises a pair of second through-holes extending through the stem from one side to the other and a pair of additional leads extending through the second through-holes (Fig 1a: 2a-2f second

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through hole, 2g-2l first through hole, 1a, 6-7, wire leads through the stem casing to the other side connecting to LD, and photodetector), wherein the second through-holes are filled with a sealant of a glass material so that the stem and the additional leads are held together (Col 1: 40-46) (Col 2: 15-25 seal hole with glass).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

4. Claims 2-3, 5-6, 8, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi et al. (US 6868105) in view of Applicant's Prior Art (Fig 1,2).

With respect to claims 2, 11 the claim further require the stem has a heat sink block protruding from one end thereof, the heat sink block being adjacent to the first through-hole.

Yagi et al. '105 discloses the above, however did not discreetly disclose about the heat sink adjacent to next through-hole. Applicant Prior Art (Fig 2) shows a laser device having heat sink

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block (Fig 2: 211) protruding from one end and adjacent to the first through hole (Fig 2: through hole formed from ceramic feed through and stem). It would have been obvious to one of ordinary skill in the art to provide Yagi et al. '105 with the heat sink as taught or suggested by Applicant Prior Art (Fig 2), for the benefit of aligning the laser light to reduce heat generate within the device to extend the life of the laser device.

With respect to claims 3, 12 Applicant's Prior Art (Fig 1,2) shows a sub-mount attached to one end of the heat sink block (Fig 2: laser block on top of the sub-mount "not label or number" on top of the heat sink". Yagi et al. '105 further shows the sub-mount (Col 2: 21-25) (Col 4: 27-30 sub-mount) having a circuit pattern formed on a surface thereof (Fig 4, 5: 8 sub-mount with circuit wiring - the lead wires inherently need to be connected to the laser diode, photodiode, and other elements, now has been formed on the sub-mount to reduce clutter).

With respect to claims 5,6 Applicant's Prior Art (Fig 1: 102, 103, 104) shows and discloses the plurality of leads includes a DC bias lead for the laser diode, a radio-frequency signal lead, a lead for the monitoring photo diode, and at least one ground lead (Col 1: section [0006-0007] electrical RF signal, DC bias, cathode lead, diode, and corresponding leads).

With respect to claim 8, the claim further require a pair of additional leads is a DC bias lead for the laser diode and the other is a lead for the monitoring photo diode. Applicant's Prior Art (Fig 1) (Col 1: section [0006] disclose DC bias lead to laser diode 103 and photodiode 104).

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With respect to claims 13, 14 the claims further require a step of sealing through-hole, wherein the sealant is melted at a temperature of about 500.degree. C. Yagi et al. ' 105 did not discretely disclose the range of temperature around 500 degree C, however Yagi et al. '105 did shows and discloses the lead have been aligned and fixed where sealing is heat to bond the elements together (Col 4: 13-45; Fig 1), and Applicant's Prior Art (Fig 1) (Col 1: section [0007]) further discloses the use of heat to bond the leads together with the stem. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art, in this case is the range of melting the resin or glass to bond to the semiconductor and wiring. In re Aller, 105 USPQ 233.

REASON FOR ALLOWANCE

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance - Applicant's response filed on 10/15/2003 has been considered, with respect to claim 15 the references of the record fail to teach or suggest:

Claim 15:

An optical element module package having a laser diode for projecting optical signals and a photo diode for monitoring the optical signals projected from the laser diode, comprising: a .stem having a first through-hole formed in a long-hole shape and a pair of second through-holes formed on the stem; and a radio-frequency lead provided in the first through-hole and a plurality of leads provided in the second through-holes.

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6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Allowable Subject Matter

7. Claims 4, 9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of the record fail to teach or suggest:

Claim 4:

An optical module package having a laser diode, photodiode comprising a stem and wires formed in a long first through hole sealed with glass material, with a laser diode mounted on a sub-mount having a circuit form on the surface, where the stem has a heat sink block adjacent to the first through hole.

Claim 9:

The package further comprises a second through-holes extending through the stem and sealed with glass material, wherein the stem has a heat sink block protruding from one end and positioned between the second through-holes adjacent to the first through-hole.

Communication Information

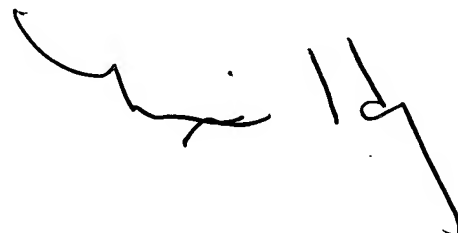
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan Nguyen", with a long horizontal stroke extending to the left.A handwritten signature in black ink, consisting of a stylized, cursive script.

PAIRING SYSTEM
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